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ABSTRACT

Studies investigating academic persistence compose one of the most widely reported areas of research in higher education. Tinto is most often cited in and associated with student persistence research. This paper details the origins of Tinto's theories, as well as subsequent criticisms and reformulations of those fundamental theories. The origins of Tinto's student departure theory began with his collaboration with Cullen in 1973. The academic and social integration variables from this collaboration formed the foundation for Tinto's 1975 model, while his subsequent inclusion of additional environmental variables was adapted from Van Gennep's rites of passage theory. One of the major criticisms of the Tinto model was its exclusion of the two-year college student population. Bers (1988) and Halpern (1990) were among the first to suggest Tinto's model could be applied to two-year colleges. They also suggested additional variables, such as college major, be included as influences on student persistence. Tierney (1992) asserted that Tinto misinterpreted Van Gennep's anthropological rites of passage, which could have harmful consequences for minority students. This paper argues that research of the 1990s evidences the continuing existence of opportunities for further exploration of the basic theoretical concepts of Tinto and others. Braxton (2000) urges researchers to reinvestigate Tinto's theory of student departure. (Contains 65 references.) (Author/NB)

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Challenges and Changes to Tinto's Persistence Theory

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Challenge and Changes to Tinto's Persistence Theory

On the threshold of the 21st century, American higher education, and particularly the two-year college, continues to grapple with issues and concerns affecting students' opportunities to participate in postsecondary education. Issues of access, persistence, and goal attainment, as well as the economic benefits of attending college, are just a few of the concerns affecting educators, policy analysts, legislators, and students. Individual student characteristics, such as gender, age, ethnicity, and high school experience, influence a student's potential to participate in postsecondary education. Both the student and the college face challenges and obstacles, as higher education becomes for many an expectation for access and the portal to success in today's world.

As the higher education community has dealt with issues associated with providing educational opportunities for many students, one specific challenge to achieving this goal has recently emerged. For most colleges, this challenge focuses on issues of persistence and goal attainment (American Association of Community Colleges, 1994). Questions regarding accountability and determining institutional effectiveness dominate the agendas of policymakers, administrators, taxpayers, and consumers. Assessment of institutional effectiveness is a necessary and important component to higher education (Kempner & Taylor, 1998).

Early researchers (see Astin, 1970; Tinto, 1973) reported on student persistence, and subsequent researchers analyzed or provided alternate theories for discussion and review. From this evolution of additional ideas and theories, more studies were produced, with the original researchers responding to the criticisms or providing new or additional evidence to support previous findings. The 30-year review of persistence literature

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attempts to provide evidence of the numerous studies and emerging research on student persistence that continues to flourish.

Theoretical Models of Persistence

Studies investigating persistence comprise one of the most widely reported areas of research in higher education, as a significant amount of literature exists on this subject. Although Astin's (1975) groundbreaking research of access and persistence provided a framework for future researchers, Tinto is most often cited and associated with student persistence research. The origins of Tinto's student departure theory began with his collaboration with Cullen in 1973. Cullen's previous research investigated and reviewed longitudinal studies on student attrition. The collaboration with Tinto (1973) produced a theoretical model of attrition and persistence that included the following components: (a) pre-entry attributes (prior schooling and family background); (b) goals/commitment (student aspirations and institutional goals); (c) institutional experiences (academics, faculty interaction, co-curricular involvement, and peer group interaction); (d) integration (academic and social); (e) goals/commitment (intentions and external commitments); and (f) outcome (departure decision – graduate, transfer, dropout).

While the academic and social integration variables from his 1973 collaboration formed the foundation for Tinto's 1975 model, his subsequent inclusion of additional environmental variables was adapted from Van Gennep's (1960) rites of passage theory. Van Gennep pointed to the use of ritual and ceremony as necessary components to a person's integration into a new setting. Van Gennep's theory also incorporated fundamental sociological perspectives previously identified by Durkheim's theories of suicide and departure. Durkheim (1953) explained that four specific types of suicide

(departure) occur within society, one of which he labeled egotistical. He defined egotistical suicide as a person's inability to become integrated into the community membership and subsequent failure to do so could be rooted in either an intellectual or a social phenomenon. Egotistical suicide tended to occur when one failed to become integrated into a new environment.

Using Durkheim's theories, Van Gennep noted that as a person moves from one place or stage to another, certain rites of passage occur and are celebrated or marked with socially significant events. These events provide tangible evidence of a person's integration into the social setting and serve as evidence of accomplishment and acceptance. The anthropological base of Van Gennep's theory provided Tinto with a foundation to apply his own theory of student departure to institutions of higher education. Tinto's extension of the ideas of "rites of passage" into the higher education arena provided examples of a student's need to navigate through the higher education system and eventually to acclimate to a specific environmental setting. An individual's failure to acclimate to an environmental setting continued to be a focus of Tinto's studies identifying reasons for student departure, notably from college.

Another early influence on Tinto's theoretical development was Spady (1970), who also adapted a theory of student departure from Durkheim's suicide theory (1953). Spady suggested a person's movement from one place to another could be applied to many situations. While Durkheim's work presented a theory based on permanent withdrawal (suicide) from society, Spady suggested students have specific characteristics and specific goals, thus academic performance in college became a dominant influence affecting student behavior. Spady's theoretical model investigated the student dropout

process and he was one of the first sociologists to develop a theory of student persistence modeled on Durkheim's work. Tinto used the one type of departure, egotistical, suggested by Durkheim, as the model for explaining student departure from the system.

Focusing on the four-year college student, Tinto's (1975) student departure theory incorporated the six components derived from this collaboration with Cullen into his research on the influences on student persistence. Tinto's theory suggested students arrive at college with certain expectations and aspirations. The integration or lack thereof, into the college environment, affected students' outcomes (e.g., degree attainment). The influence of institutional variables, such as faculty-student interaction, peer group interaction, and extracurricular involvement, helped shape the students' progression through college.

Astin (1970), in one of his earliest studies, presented an input-process-output model of student involvement theory. In later research, he (1975, 1985) presented a talent development model, whereby student involvement in higher education resulted in the development of certain talents inherent to both the student and the system. Additional research by Astin focused on establishing a foundation for future studies on variables affecting persistence in college. He suggested certain variables influence student persistence, notably various forms of financial aid. Two significant results from his research suggested financial aid, when packaged in a combination of loans, grants, scholarships and work-study awards, was not as effective a determiner of persistence as providing one single source of financial aid award, specifically work-study funds. A reliance on loans tended to influence persistence negatively for males, while scholarships and grants had little, if any, influence on persistence. His theories provided a framework

for additional studies by other researchers. Astin suggested students become involved in college; subsequently, the level and intensity of their involvement in the institutional environment affected students and their potential and willingness to persist. Simply stated, Astin's involvement theory is "students learn by becoming involved" (1985, p. 133).

While Tinto's model of student persistence is similar to Astin's involvement theory, the detailed theoretical structure proposed by Tinto provided researchers with opportunities to study student change and to develop additional models for investigating influences on student persistence; thus, a theoretical foundation was established for empirical research.

Tinto attempted to understand the longitudinal process of student persistence, and the underlying premise to his research included investigating why behaviors occurred and the effects of these behaviors on student persistence. Academic and social integration, where the student is immersed in the many dynamics of college life, formed the basis for Tinto's 1975 model. This integration concept provided other researchers with a conceptual framework from which to develop empirical evidence to test the Tinto persistence model.

Tinto's ongoing research continues to be prevalent in much of the literature on student departure. Studies by other researchers used the 1975 Tinto model as a starting point in their investigations into student persistence and attrition.

Empirical Models of Persistence

John Bean developed a causal model of student attrition based on the theoretical models proposed by early 1970s researchers Spady, Astin, and Tinto. His 1980 study

sought to investigate why there was an apparent insignificant change in the overall persistence rates of students, as noted by Summerhill's 1962 report, which analyzed a 50-year review of attrition studies. Bean applied a theory based on organizational behavior to reasons for student persistence and attrition. His research focused on student attrition and those factors influencing non-persisters and he reported on similarities between leaving the world of work and leaving college. By applying the theoretical concept of job turnover to postsecondary education, Bean suggested the reasons for employee departure could be applied to student departure from higher education. In a follow-up study, Bean (1981) synthesized Spady's (1970) social integration process model and Tinto's (1975) goal commitment model into a new causal model that added attitudinal variables into the Bean model. Bean suggested student attrition was affected by: (a) student background variables, (b) interaction by students within the institution, (c) the influence of environmental variables (finances, family support), (d) the presence of attitudinal variables (a subjective evaluation of perceived quality and self-satisfaction with the institution), and (e) student intention, such as transfer and degree attainment.

Bean's work expanded on the previous work of Tinto and Astin by integrating academic variables, student intent, goals, expectations, and external and internal environmental factors into a revised model of persistence. The research investigated the interaction between student and institution and reviewed external factors influencing student's intent and departure. Later collaborations with Metzner (1985) integrated not only the interactional dynamics presented in Bean's previous research, but also elements of nontraditional students and the influence of environmental factors on student departure and attrition. The Bean and Metzner (1985) model added academic variables such as

grade point average and high school performance, as well as assessed certain psychological variables (satisfaction, family acceptance, stress) on student outcomes.

During the same period when Bean suggested a theoretical and causal model of student attrition, several other researchers began their investigations into the influences on student attrition and student persistence. Pascarella and Terenzini (1980) expanded the works of Spady, Tinto, Astin, and Bean. Social and academic integration formed the basis for Pascarella and Terenzini's emerging theories on student intent and persistence. Both men outlined student involvement theory from the perspective of student interaction with faculty and peers. They provided a causal relationship model addressing both direct and indirect effects of student involvement and interaction. In a separate model, Pascarella (1986) moved beyond Tinto's (1975) single institution model and began addressing multi-institutional perspectives. Terenzini and Pascarella (1980), in another study, focused on the interactions and interrelationships between students and faculty, finding that the amount of time spent with faculty, both in and out of the classroom, strongly influenced student intent and persistence.

The research of investigators such as Bean, Pascarella, and Terenzini addressed the weaknesses of Tinto's early model of persistence. These criticisms of his 1975 study led Tinto to emphasize the applicability of his model, which included stages of separation, transition, and incorporation, and to suggest these factors were integral in understanding why students leave college. However, he expanded on his seminal 1975 work by acknowledging the need to include additional ethnographic information as background variables and to assess the role academics and social integration factored into his conceptual model of persistence. Tinto's 1987 revision of his previous work posited

five major theoretical bases for developing and understanding the evolving nature of student persistence research. Those bases included psychological, societal, economic, organizational, and interaction factors. The inclusion of those components appears to support the previous findings by Metzner and Bean (1987) that psychological and environmental factors are important variables to include when developing a conceptual model of student attrition.

Despite the revisions to his theory, criticism of Tinto models of student persistence continued. Tierney (1992) suggested Tinto's model relied on information only about traditional age students. In addition, by not individualizing results from institutional specific data, Tinto's generalizability of findings may not be plausible. Tierney took exception to a significant element of Tinto's academic and social integration theory. He suggested that Tinto misinterpreted Van Gennep's anthropological rites of passages and that this misinterpretation may "hold potentially harmful consequences for racial and ethnic minorities" (1992, p. 603). Tierney noted Tinto's theory is too broad in its treatment of social integration and does not address specific examples that could be related to non-traditional elements within higher education. For example, references to departure from a society, such as a college or university, may have different contextual meanings for different groups, (e.g., Native Americans). Native American students who enter traditional college and universities undergo their own form of a rite of passage, according to Tierney. These students experience a "disruptive cultural experience not because college is a rite of passage, but because the institution is culturally distinct" (p. 608).

While Tinto stated student departure to be "value-neutral" (Tierney, 1992, p. 609), Tierney asserted that the anthropological foundation associated with this concept does not apply to all individuals in all settings, as Tinto suggested. Tierney's exception to the inclusion of the term "departure" suggested Tinto's limited understanding and appreciation of the minority element present in American higher education, and how these groups tend to be alienated by the mainstream identity. Despite the criticism, Tierney noted Tinto awareness of his theory's imperfections: Tinto recognized specific segments of the student population were ignored, including adults and students attending non-residential campuses.

As empirical research of student persistence continued, new topics, focusing on ethnicity and two-year college students, emerged. In the early 1990s, Nora (1990) investigated campus-based aid programs as a determinant of student persistence and retention for Hispanics at two-year colleges. Nora's findings suggested not any students who no longer attended college and were not awarded a degree or certificate studies on persistence of Hispanics had been completed. Additionally, he noted most studies on student persistence neglected to investigate the importance of including financial aid as an influence on student persistence at the two-year college level. Nora found campus-based aid programs (work-study, institutional grants and loans, supplemental federal grants) had a significant impact on student retention at these institutions. In fact, all types of financial aid awarded were found to be an important influence on Hispanic student persistence (Nora, 1990).

In a related study on the impact of financial aid on persistence, Porter (1991) found "student aid . . . had a positive effect on . . . persistence, and ultimately, degree

completion" (p. 79). He suggested financial aid's impact and influence on student persistence were mixed and varied. Bers and Smith (1991) further supported Porter's findings. They specifically called for continued research of the influences on academic and social integration and financial aid on student persistence.

In their review of the persistence literature, Pascarella and Terenzini's How College Affects Students (1991) noted the focus of previous research was on the four-year college. They noted the exclusion from the research of the two-year college was a missing component to previous research. Both Pascarella and Terenzini suggested research should focus on non-residential colleges to ascertain those factors that influence degree attainment and persistence at two-year colleges, whether public or private, large or small. "There remains insufficient evidence to conclude that factors that influence educational attainment are the same for . . . two-year . . . institutions as for four-year institutions" (Pascarella & Terenzini, 1991, p. 414). Both researchers recommended future studies on student persistence should include race and gender as variables. They also suggested new studies should focus on the interrelationship between social and academic integration and how these factors would influence retention, persistence, and goal attainment. Pascarella and Terenzini further concluded that future studies on involvement theory, first suggested in the 1970s by Spady, Astin, and Tinto, should be expanded to include the influence of peer, faculty, and advisor relationships, as well as the role college major and financial aid may have on student persistence and goal attainment.

Pascarella and Terenzini's review also reported on the need to include specific attributes (e.g., size, control) of individual institutions, including consumer's perception

about the quality of instruction. Their collaboration also examined how student services, including academic advising and first-year orientations, affected persistence. A review of transfer opportunities and impediments experienced by students needed to be included in studies at both two and four-year institutions. While the focus of much of their 1991 review was on the four-year college and bachelor degree attainment, Pascarella and Terenzini did mention that other entities within higher education, specifically the two-year college and graduate schools, were missing. Previous researchers (see Astin, 1975; Tinto, 1975) did not include two-year colleges or graduate schools in their early studies.

Perhaps a fundamental reason for the lack of attention and specificity to the two-year college, as first suggested by Bean and Metzner in 1985, may stem from the previous writings of two-year college critics, including Burton Clark (1960) and Steven Zwerling (1976). Pascarella and Terenzini did little to defend or refute accusations and assumptions about the two-year college "cooling-out" function suggested by Clark or the "second best" status community colleges held as noted by Zwerling. Earlier, Pascarella (1986) criticized Tinto's model for limiting the research to the four-year perspective. The two-year college was absent from Tinto's evaluations. Pascarella noted academic and social integration factors were also important variables to investigate for the two-year college student and studies on this student population should extend over a longer time period, due to the distinctive nature of attendance patterns by two-year college students.

Emergence of Two-Year College Persistence Research

As previously noted, one of the major criticisms of the Tinto model was the exclusion of the two-year college student population. Researchers began to apply Tinto's conceptual student persistence model to the two-year college environment. Studies by

Bers (1988) and Halpin (1990) were several of the first to suggest Tinto's model could be applied to two-year colleges. They also suggested variables, such as college major, should be included as an influence on student persistence.

As student persistence research continued in the 1990s, Cabrera, Castaneda, Nora, and Hengler (1992) identified shortcomings to the Bean and Tinto models on college persistence. They criticized the models for excluding external factors such as parental involvement, finances, and support from friends, as possible influencers on student persistence. These researchers recognized persistence was affected by a complex interaction of internal and external environmental variables. Cabrera et al. developed a convergent theory of the Tinto and Bean/ Metzner models. This model integrated the theoretical constructs of Tinto's 1987 revised student persistence model and Metzner and Bean's (1987) academic integration model. By combining the two theoretical concepts, they suggested a more comprehensive understanding of student persistence at the two-year level could be gained.

Citing previous research (see Attinasi & Nora, 1992; Nora, 1990) on Hispanic student persistence, Cabrera et al. (1992) focused specifically on Hispanic student persistence. Their findings suggested Tinto's model was a reliable model for persistence among not only traditional college students, but also two-year college students, as well as for groups of minority students. The Nora (1990), the Attinasi and Nora (1992) and the Cabrera et al. (1992) studies were three of the first persistence research on minorities in higher education, specifically Hispanics. Studies (see Cabrera et al., 1993; Nora, Attinasi, & Matonak, 1996) supported the inclusion of environmental and academic variables as influences on student persistence, regardless of ethnicity and type of institution attended.

Because two-year college students spend little time on campus and do not become as involved in the college community as do four-year residential college students, the integration of academic and student services functions, especially academic advising and orientation programs, was a significant factor affecting persistence (Attinasi & Nora, 1992; Rendon & Nora, 1994; Terenzini & Pascarella, 1994). These findings supported the earlier hypotheses of Bean and Metzner (1985) and the literature reviewed and reported by Pascarella and Terenzini (1991) as to the importance of academic integration and campus environmental influences on a student's decision to remain or depart from college. Persistence studies continued to emerge in the literature as researchers struggled to identify causal models of student persistence and integrate generally accepted theoretical constructs on student persistence, grounded in the four-year college environment, into the two-year college sector.

Grosset (1992), in a profile of community college students, investigated a group of students not usually referred to in the literature – stopouts (defined as students who no longer attend college and were not awarded a degree or certificate). While little research on the specific behavior of stopouts is found in previous studies, Grosset noted a better understanding of stopout behavior could be achieved if a new variable, such as reporting the number of credits earned per term, would be added to current persistence studies. Previous researchers tended to focus on the traditional-age student who often enrolled for full-time credit each term. Okun, Benin, and Brandt-Williams (1996) supported the Grosset claim by investigating part-time enrollment as an influence on student persistence. They investigated predictors of persistence and found the total credits earned

per term and grade point average to be statistically significant influences on community college persistence.

While the issue of part-time enrollment trends for two-year college students continued to be a focus of researchers in the mid-1990s, Bonham and Luckie (1993) suggested research needed to include a differentiation between students identified as stopout, dropout, and optout. They defined optout students as those who choose to leave college with the possible intent of returning to college. Because of the diverse demographic characteristics of community college students, and because retention continued to be concern of campus administrators, an impediment to reporting community college retention rates resulted from the lack of standardization of terminology defining the various types of students typically found in two-year colleges.

Bonham and Luckie introduced the concept of defining community college students as goal attainers – those community college students who are not simply degree seekers. They further suggested some two-year college students may need to be referred to as optouts. Bonham and Luckie also suggested that degree completion may not always be the educational goal of every student attending a two-year college. Some students, by attending college and taking limited coursework, may meet with personal educational and job-related goals. Earning the associates degree is not always the goal for some students.

Conklin (1992) supported the notion of reporting on personal educational goal attainment. In a study tracking community college students, she suggested two-year college students tended to leave college for different reasons than do four-year college students. Goal attainment for two-year college students may be affected by changes in personal lifestyles and financial restraints (Hanniford, 1993). These two factors tended to

be more influential on persistence and departure for two-year college students than were academic and social integration, as previously reported findings suggested for traditional students at four-year institutions. Windham (1994) also suggested implications of integration and internal environmental interventions are different for non-traditional students. Degree expectation emerged as a new variable to be considered as a potential influence on community college student attrition.

Students attend the two-year college for reasons other than attaining a degree. Reasons may include certificate seeking, skills development, or personal enrichment. The time restraint factor, as first suggested by Conklin (1992) and examined further by Sturtz (1995), was once again investigated by Conklin (1995) in a follow-up study. She proposed that five-year longitudinal studies are not long enough to gain a realistic view of the demands and obstacles existing for students who seek to complete degree requirements in a timely manner. Conklin found nearly 80% of community college students still planned to achieve a degree and, after 5 years, most of this cohort was still pursuing postsecondary education.

Institution Specific Data

In a 1993 study, undertaken in response to Tierney's (1992) criticism, Tinto cited the importance of institution specific studies, and noted they tend to provide better information about the individual student than do national studies. Tinto suggested research reporting on individual students and individual institutions enhanced the total understanding of persistence and departure because policy initiatives would have a greater impact and be more relevant when reporting from a single institutional perspective. "Only institution specific studies . . . can provide insight into circumstances"

(Tinto, 1993, p. 22).

Other institution-specific studies (see Hammons, 1999; Pearson, 1999) determined age and enrollment status (full-time versus part-time) to be a determiner of degree completion for two-year college students. Pearson (1999) suggested a subset of variables exist that may predict student success, but additional research is warranted to further investigate such subsets. In a study applying the theoretical concepts of Tinto's student departure theory to a community college setting, Liu and Liu (1999) added to previous research findings that suggested the reporting of individual institutional data to be important. From their data analysis, which incorporated psychological, sociological, and socio-economical effects on individual students at individual institutions, their findings suggested no single variable best-predicted student departure decisions.

House (1999) continued the discussion on individual student and institutional data analysis and reported institution-specific environmental factors affected students' outcomes. A study by Hu and St. John (1999) indicated individual student records are a reliable data source for reporting results, particularly when relating specific variables, such as financial aid, as predictors of persistence and retention rates, for example.

Thus, during the 1990s a revised look at institutional specific data at the community college level emerged. Sturtz (1995) investigated why community college students leave and reenter college. His study suggested institutional, situational, and psychological factors specifically affect a student's decision to leave college and perhaps, a decision to return to college. His research suggested two basic reasons existed for two-year college students to leave college – time and money restraints. Two reasons existed for two-year college students to return to college – renewed availability of time and

money. His study supported a previous conclusion suggested by Conklin (1992) who also found time and money to be factors influencing college attendance. Sturtz suggested leaving college, especially for the two-year college student, is not necessarily a negative experience.

Challenges for the Two-Year College

During the late 1990s, researchers continued to investigate factors, including financial aid and student intent, influencing student persistence. Truesdell (1997) found community college market perceptions to be an important influence on both student persistence and student goal attainment. His study found the perceived quality of programs and the availability of consumer information for a student was an integral factor in college attendance decision-making. He cautioned community colleges not to configure programs in an attempt to meet the needs of all learners. Rosenbaum (1998) provided a challenge to the two-year college to investigate alternative options in an attempt to be colleges for all. Grimes (1997), in a study of under-prepared students at two-year colleges, provided a similar cautionary inference suggested by Truesdell. Two-year college leaders must look at the characteristics of individual students and seek to determine those individual factors affecting two-year college persistence.

As recently as 1999, Pascarella injected a concern for the apparent limited research on two-year colleges as well as the limited reporting on the effects of attending, persisting, and graduating from two-year colleges. He suggested it is dangerous to perpetuate the hierarchical nature of postsecondary education and not report community college information as an important and valuable part of postsecondary education research. The apparent lack of research and investigations tends to perpetuate

stereotypical beliefs and attitudes of this particular segment of the postsecondary realm. Furthermore, Pascarella noted researchers cannot ignore the 1,300 institutions enrolling 40% of all students in higher education and should seek to include neglected variables, such as student intent, into all studies on persistence and retention and degree attainment rates.

Recent studies on student persistence have expanded the variables we need to study to investigate factors and influences on persistence, goal attainment, and degree completion. New researchers suggested a continuing research agenda on persistence, academic performance, student success, and degree completion rates that exist at two-year institutions. Contento (1999) reported on the impact of financial aid on persistence and found family income levels influence persistence and degree completion. Research by Stovell (1999) discovered participation in a student success course to have a statistically significant effect on community college persistence rates. While Watson (1999) did not find the same results for two-year college students' persistence, it was suggested additional research was needed to better understand the influence of orientation classes on student retention and time-to-degree completion. Coppola (1999), in a study investigating demographic and background variables, found early intervention positively affected persistence and retention at the two-year college level. For adult students, first-year academic success is critical for persistence and goal attainment, and any intervention or intrusion that assists students, tended to insure adult commuter student success (Smith, 1999).

Using research from investigators such as Nora (1990) and Terenzini and Pascarella (1994), Tinto once again revised his theoretical model of student persistence.

He suggested the findings from the emerging student persistence research offered new opportunities for investigators to incorporate those findings into other sectors of postsecondary educational research, notably the two-year college. Responding to the criticisms that his previous models did not include a discussion of student involvement, he noted involvement in college has many different levels and does not always have to focus on persistence. Rather, Tinto proposed exploring the educational character of persistence and its relationship to institutional research and student development.

Tinto (1998) suggested academic integration was an integral and essential element to persistence at the two-year level. From his review of studies by Nora (1990), Rendon and Nora (1994), and Terenzini and Pascarella (1994), Tinto placed a renewed emphasis on the various levels of academic integration and acknowledged that academic integration need not always occur within the classroom and be limited only to faculty interaction. While still maintaining the premise that academic and social integration are important at the four-year level, Tinto recognized that limited opportunities existed for the two-year college student, due to time constraints, for traditional academic integration to occur.

The Future of Persistence Research

As evidenced by the research in the 1990s, opportunities still exist for further exploration of the basic theoretical concepts of Tinto, Bean, Metzner, Pascarella, and Terenzini. While some researchers, such as Nora, Rendon, Hope, Attinasi, and Castanada, focused on specific ethnic groups, some of the same early researchers continued to update their findings and promoted new areas of research, notably at the two-year college level (see Bean & Metzner, 1996; Tinto, 1998). In a review of the

literature on student persistence, limited research exists that focuses on other ethnic groups, notably African-Americans. Additionally, few studies exist examining persistence at women's colleges and historically black institutions. Persistence studies at these institutions would exclude the two-year perspective, as most women's and historically black colleges are four-year institutions.

Other minority groups are missing from extensive inclusion in the literature, including physically challenged, gay, and lesbian students, and sub-groups of non-traditional students (e.g., students over a specific age or students deemed at-risk [Braxton, 2000]). Emerging research (see Elkins, Braxton & James, 2000; Smith, 1999) appears to recognize that gaps do exist in the research, as evidenced by the movement from the four-year perspective to the two-year level and inclusion of groups not included in previous research studies.

Braxton (2000), in his book Reworking the Student Departure Puzzle, discussed the findings of St. John, Tierney, Cabrera, Nora, Bean, Kuh, and Stage and suggested these findings present an important impetus to reinvigorating research on college student departure. By urging researchers to reinvestigate Tinto's theory of student departure, Braxton recommended a "serious revision" (p. 258) of Tinto's interactionalist theory. He also suggested the development of theoretical concepts incorporating economic (see St. John, 1993, 1994, 1995; St. John & Andrieu, 1995; St. John, Hu, & Weber, 2000), psychological (see Bean & Metzner, 1985), sociological (see Liu & Liu, 1999; Kuh, 2000), and organizational perspectives (see Bean, 1980, 1981; Metzner & Bean, 1987) merit investigation.

Elkins, Braxton, and James (2000) concluded certain aspects of individual variables affecting persistence need to be reexamined and suggested replicating previous studies of four-year college persistence studies at the two-year college level. They suggested a need exists to understand the influences on student persistence, including a revision of Tinto's traditional theoretical model of student departure. They also recommended supporting the factors Bean and Metzner (1996) incorporated into their study. These factors included student satisfaction, a personal sense of usefulness, and stress. Bean and Metzner found these influences would be appropriate variables to include in a detailed examination of how college affects students. Their findings suggested these factors impact and influence persistence and degree attainment. Additionally, Bean and Metzner suggested other outside environmental influences, specifically family involvement and commitment, should be considered as variables influencing student success or student failure.

Persistence studies continue to evolve and incorporate new variables into the research, thus reflecting the changing dynamics in American higher education. Results of these persistence studies suggest the influences on student departure remain mixed. Meanwhile, the focus on accountability by an internal and external constituency in all facets of the educational system, including higher education, will continue to dominate policymakers' agendas and force personnel in these postsecondary institutions to provide evidence of successes, and, at times, failures.

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